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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/628,671	07/28/2003	Ulrich Sander	33997.0087	7114

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EXAMINER

FINEMAN, LEE A

ART UNIT	PAPER NUMBER
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2872

DATE MAILED: 11/19/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/628,671	Applicant(s) SANDER, ULRICH	
	Examiner Lee Fineman	Art Unit 2872	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 July 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>7/28/04</u> | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the separation of the first and second objective parts deviating from bisection (claim 13) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

2. Claims 5 and 6 are objected to because of the following informalities: the limitation “the optical correction” lacks antecedent basis. Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1 and 5 are rejected under 35 U.S.C. 102(b) as being anticipated by Klein, U.S.

Patent No. 4,361,379.

Klein discloses an objective for a microscope (figs. 4-6), the objective comprising: an optical axis (vertical dashed line, figs. 4-6); a first objective part for observation (left side of 26 or 33); and a second objective part for illumination (right side of 26 or 33), the second objective part being separated from the first objective part (figs. 4-6) and having an illumination axis at an angle to the optical axis of the objective (horizontal dashed line, figs. 4-6); wherein deviations in an optical correction between the a first objective part for observation and the second objective part for illumination are corrected at least in part by way of modified air gaps (in so far as the air

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gap between lens element 26 and 27 or 33 and 34 are modified during focusing which is an optical correction).

5. Claims 1-2, 5, 7, 10-11 and 13 are rejected under 35 U.S.C. 102(e) as being anticipated by Strähle, U.S. Patent No. 6,392,797 B2.

Regarding claims 1-2, 5, 7 and 13, Strähle discloses in fig. 1 an objective for a microscope, the objective comprising: an optical axis (7); a first objective part for observation (27); and a second objective part for illumination (15), the second objective part being separated from the first objective part (fig. 1) and having an illumination axis (11) at an angle to the optical axis of the objective (fig. 1); a front lens element group (25) and a deflection element (33) mounted directly above the front lens element group (fig. 1) for coupling an illumination beam path (17 and 19) into a beam path of the microscope; wherein deviations in an optical correction between the a first objective part for observation and the second objective part for illumination are corrected at least in part by way of modified air gaps (column 3, lines 1-37); wherein the first objective part (27) includes optical elements displaceable along the optical axis (7) of the objective and the second objective part (15) includes optical elements displaceable along the illumination axis (11) and correlated to the displaceable optical elements of the first objective part, and wherein a change in position of the displaceable optical elements of the first objective part results in a change in position of the correlated displaceable optical elements of the second objective part (column 3, lines 1-37); and wherein the separation of the first and second objective parts deviates from bisection (fig. 1, 27 is larger than 15).

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Regarding claims 10-11, Strähle discloses in fig. 2 a front lens element group (25) having a first front lens element group part on an observation beam path (right side of dashed element) and a second front lens element group part on an illumination beam path (left side of dashed element), and means for optically decoupling the second front lens element group from the observation beam path (dashed element, column 3, lines 38-43), which is a cover.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 8 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Strähle.

Strähle discloses the claimed invention except for explicitly stating that the coupling (30) of the displaceable optical elements of the first objective part and the second objective part are mechanically coupled or electro-mechanically coupled. Official Notice is taken that mechanically coupled or electro-mechanically coupled lens elements are very well known in the art for accurate, synchronized movement of lenses. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the coupling of Strähle be either mechanically coupled or electro-mechanically coupled to provide for accurate, synchronized movement of the objective lens parts.

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8. Claims 3-4, 6 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Strähle in view of Ishikawa et al., U.S. Patent No. 4,871,245.

Strähle further discloses a deflection surface that is convexly curved surface (241, fig. 4). Strähle discloses the claimed invention except for the deflection element including an entrance surface, a deflection surface, and an exit surface, and at least one of the entrance, deflection and exit surfaces is a concavely curved surface; and wherein the second front lens element group part is associated with the second objective part, and the objective further comprises a deflection element arranged such that an exit surface of the deflection element is coplanar with a surface of the first front lens element group part. Ishikawa et al. disclose a microscope (figs. 4 and 6) with a deflection element (49, 70) for directing illumination light and including an entrance surface, a deflection surface, and an exit surface, and at least one of the entrance, deflection and exit surfaces is a concavely curved surface (fig. 4). It would have been obvious to one of ordinary skill in the art at the time the invention was made to replace the deflection element of Strähle with that of Ishikawa et al. to provide more flexibility by having more surfaces for different surface combinations for specific beam directing. Therefore, regarding claim 12, the second front lens element group part (left side of dashed element in fig. 2) is associated with the second objective part (15), and the objective further comprises a deflection element (70, Ishikawa) arranged such that an exit surface of the deflection element is coplanar with a surface of the first front lens element group part (fig. 1, in so far as the exit surface of a prism element as 33 is coplanar with the top surface of element 25).

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Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Nakamura, U.S. Patent No. 5,867,311; Sander, U.S. Patent No. 4,779,968; Möller et al., U.S. Patent No. 5,973,829, and Koetke, U.S. Patent No. 6,624,932 B2 disclose various deflecting illumination devices for microscopes.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lee Fineman whose telephone number is (571) 272-2313. The examiner can normally be reached on Monday - Friday 7:30 - 4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Drew Dunn can be reached on (571) 272-2312. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



LAF

November 12, 2004


MARK A. ROBINSON
PRIMARY EXAMINER